

Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1.(original): An ancient defense polymer having antimicrobial activity, said polymer comprising one or more discrete hydrophobic segments and one or more hydrophilic segments containing cationic functionality.

Claim 2.(original): An ancient defense polymer according to claim 1, in which said hydrophobic segment comprises:

- 1) polymerized hydrophobic chain growth monomers;
- 2) polymerized step-growth monomers; or
- 3) hydrophobic (di)functional oligomers or polymers.

Claim 3.(currently amended): An ancient defense polymer according to claim 1 ~~or 2~~, in which said hydrophilic segment comprises:

- 1) polymerized cationic chain growth monomers;
- 2) a polymer made from a mixture of cationic chain growth monomers and (i) uncharged monomers that are hydrophilic or (ii) hydrophobic monomers; or
- 3) cationic (di)functional oligomers or polymers .

Claim 4.(currently amended): The ancient defense polymer of claim 1, ~~2, or 3~~, wherein said hydrophobic segment comprises polymerized hydrophobic alkyl methacrylates, aryl methacrylates, alkyl methacrylamides, or aryl methacrylamides.

Claim 5.(currently amended): The ancient defense polymer of claim 1 ~~any one of claims 1 to 4~~, wherein said hydrophilic segment comprises polymerized methacrylates and/or methacrylamides.

- Claim 6.(original): The ancient defense polymer according to claim 1 comprising a copolymer of 3-aminopropyl methacrylamide (AMA,) and poly(propylene oxide)monomethacrylate (PPO-ME).
- Claim 7.(original): The ancient defense polymer according to claim 6 wherein AMA is present in an amount of from 5 to 50 mol%.
- Claim 8.(original): The ancient defense polymer according to claim 6, wherein AMA is present in an amount of about 10 mol%.
- Claim 9.(original): The ancient defense polymer according to claim 1, comprising a terpolymer of 3-aminopropyl methacrylamide (AMA,), poly(propylene oxide)monomethacrylate (PPO-ME), and methyl methacrylate.
- Claim 10.(original): The ancient defense polymer according to claim 1, comprising a terpolymer of 3-aminopropyl methacrylamide (AMA), poly(propylene oxide)monomethacrylate (PPO-ME), and n-butyl methacrylate.
- Claim 11.(currently amended): The ancient defense polymer according to claim 1 ~~any one of claims 1 to 10~~, that has a grafted chain architecture, comprising a main chain and chains grafted onto the main chain.
- Claim 12.(original): The ancient defense polymer of claim 11, wherein the main chain contains hydrophilic segments and the grafts contain the hydrophobic segments.
- Claim 13.(currently amended): The ancient defense polymer of claim 1 ~~any one of claims 1 to 10~~, wherein the hydrophilic and/or the hydrophobic segments are attached either directly or indirectly to a derivatizable polymer.
- Claim 14.(original): The ancient defense polymer according to claim 13, wherein at least one of said hydrophobic segments or said hydrophilic segments is attached to the derivatizable polymer by a spacer group.

Claim 15.(original): The ancient defense polymer according to claim 13, wherein said hydrophobic segment and said hydrophilic segment are attached to the derivatizable polymer by a spacer group.

Claim 16.(original): The ancient defense polymer according to claim 13, wherein at least one of said hydrophobic segments and said hydrophilic segments is grafted onto said derivatizable polymer.

Claim 17.(original): The ancient defense polymer according to claim 13, wherein said hydrophobic segment is grafted onto said hydrophilic segment.

Claim 18.(currently amended): The ancient defense polymer of claim 13 ~~any one of claims 13 to 16~~, wherein the derivatizable polymer comprises polymerized chain growth monomers containing reactive functional groups.

Claim 19.(original): The ancient defense polymer of claim 18, wherein said functional groups are one or more of the groups selected hydroxyl, carboxylic acid, amine, vinyl, acid chloride , and isocyanate.

Claim 20.(currently amended): An apparatus comprising the ancient defense polymer of claim 1 ~~any one of claims 1 to 19~~ bound in or attached to a surface of said apparatus to impart antimicrobial activity to said apparatus.

Claim 21.(original): The apparatus of claim 20, wherein said apparatus is selected from the group consisting of an implant, a catheter, a replacement valve, a wound dressing, a medical device, and a stent.

Claim 22.(original): The ancient defense polymer of claim 10, made from 1-15 mol% BMA, 5-49 mol% AMA, and 50-90 mol% PPO-Me.